IN THE CLAIMS

1. (Currently Amended) A replication conditional [[viral]] adenoviral vector ~~having at least one interfering genetic element and~~ comprising ~~at least one~~ a left ITR, an E1a transcription unit and at least one insulating sequence, wherein said at least one insulating sequence is ~~located~~ isolated from its genetic source and inserted 5' to the transcription initiation site of said E1a transcription unit and 3' to said ~~interfering genetic element~~ left ITR and the adenoviral packaging signal.

2. - 3. (Canceled)

4. (Original) The viral vector of Claim 1, wherein said insulating sequence is a termination signal sequence.

5. (Original) The viral vector of Claim 4, wherein the termination signal sequence is a polyadenylation signal sequence.

6. (Original) The viral vector of Claim 5, wherein the polyadenylation signal sequence is the SV40 late polyadenylation signal sequence.

7. (Original) The viral vector of Claim 5, wherein the polyadenylation signal sequence is the SV40 early polyadenylation signal sequence.

8. (Original) The viral vector of Claim 1, further comprising a therapeutic gene.

9. (Original) A viral vector particle comprising the viral vector of Claim 1.

10. (Original) A eukaryotic cell transfected with the viral vector particle of Claim 9.

11. (Currently Amended) The vector of Claim 1, ~~which is an~~ wherein the transcription unit of said adenoviral vector is operably linked to a tissue-specific transcriptional regulatory sequence and wherein said vector selectively replicates in tumor cells.

12. - 13. (Canceled)

14. (Currently Amended) The adenoviral vector of Claim 11, wherein the ~~interfering genetic element is~~ sequence located between -141 and -305 relative to the E1a transcription initiation site at +1 has been removed.

15. (Currently Amended) The adenoviral vector of Claim [[11]] 25, ~~further comprising a deletion 5' to the~~ wherein said insulating sequence is a termination signal sequence.

16. (Currently Amended) The adenoviral vector of Claim 15, ~~comprising a deletion in the packaging signal 5' to the termination signal sequence such that the packaging signal becomes non-functional~~ wherein said termination signal sequence is a polyadenylation signal sequence.

17. (Currently Amended) The adenoviral vector of Claim [[15]] 16, ~~comprising a deletion 5' to the termination signal sequence wherein the deletion spans at least nucleotides 189 to 551~~ wherein said polyadenylation signal sequence is the SV40 late polyadenylation signal sequence.

18. (Currently Amended) The adenoviral vector of Claim 17, ~~comprising a deletion 5' to the termination signal sequence wherein the deletion spans at least nucleotides 103 to 551~~ wherein said polyadenylation signal sequence is the SV40 early polyadenylation signal sequence.

19. - 23. (Canceled)

24. (Currently Amended) The adenoviral vector of Claim [[23]] 11, wherein said tissue-specific transcriptional regulatory sequence is a promoter or an enhancer.

25. (Original) The adenoviral vector of Claim 24, wherein said promoter is selected from the group consisting of E2F, CEA, MUC1/DF3, alpha-fetoprotein, erb-B2, surfactant, tyrosinase, PSA, TK, p21, hTERT, hKLK2, probasin and cyclin gene derived promoters.

26. (Original) The adenoviral vector of Claim 24, wherein said enhancer is selected from the group consisting of DF3, breast cancer-specific enhancer, viral enhancers, and steroid

receptor enhancers.

27. (Original) The adenoviral vector of Claim 11, further comprising a deletion in the E3 region.

28. (Original) The adenoviral vector of Claim 11, further comprising a therapeutic gene.

29. (Original) An adenoviral vector particle comprising the adenoviral vector of Claim 11.

30. (Original) A eukaryotic cell transfected with the adenoviral vector particle of Claim 29.

31. (Withdrawn) A method of reducing the transcription level of a transcription unit in a viral vector caused by an interfering genetic element which displays enhancer or promoter activity in relation to said transcription unit, comprising the steps of identifying a suitable insulating sequence and inserting said insulating sequence into said viral vector 5' to the transcription initiation site of said transcription unit.

32. (Withdrawn) The method of Claim 31, wherein said insulating sequence is located no more than 3000 nucleotides 5' to the transcription initiation site of said transcription unit.

33. (Withdrawn) The method of Claim 31, wherein said insulating sequence is a termination signal sequence.

34. (Withdrawn) The method of Claim 33, wherein the termination signal sequence is a polyadenylation signal sequence.

35. (Withdrawn) The method of Claim 34, wherein the polyadenylation signal sequence is the SV40 late polyadenylation signal sequence.

36. (Withdrawn) The method of Claim 34, wherein the polyadenylation signal sequence is the SV40 early polyadenylation signal sequence.

37. (Withdrawn) The method of Claim 31, wherein the vector construct further

comprises a therapeutic gene.

38. (Withdrawn) The adenoviral vector of Claim 20 further comprising a therapeutic gene.

39. (Withdrawn) The adenoviral vector of Claim 38, wherein said therapeutic gene is a cytokine.

40. (Withdrawn) The adenoviral vector of Claim 39, wherein said cytokine is GM-CSF.

41. (New) The replication conditional adenoviral vector of Claim 8, wherein said therapeutic gene is a cytokine.

42. (New) The replication conditional adenoviral vector of Claim 8, wherein said cytokine is GM-CSF.

43. (New) The replication conditional adenoviral vector of Claim 28, wherein said therapeutic gene is a cytokine.

44. (New) The replication conditional adenoviral vector of Claim 28, wherein said cytokine is GM-CSF.

45. (New) The replication conditional adenoviral vector of Claim 25, wherein said promoter is an E2F promoter.

46. (New) The replication conditional adenoviral vector of Claim 25, wherein said promoter is an hTERT promoter.